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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/708,590	03/12/2004	Kjell-Owe HJERTH	07589.0160.PCUS00	2589

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WASHINGTON, DC 20005

EXAMINER
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SY, MARIANO ONG

ART UNIT	PAPER NUMBER
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3683

DATE MAILED: 03/27/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/708,590	HJERTH ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Mariano Sy	3683	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 20 January 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

### **DETAILED ACTION**

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on February 2, 2006 has been entered.

2. Claims 1 and 13 are objected to because of the following informalities:

Claim 1, line 11 "the shape" should be --a shape--,

Claim 13, line 4 "prevented" should be --prevented. --.

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claim 7 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 7 recites the limitation "the respective first and second stubs" in line 2. Since "second stub" was not recited in claim 1 that claim 7 is dependent on, there is insufficient antecedent basis for this limitation in the claim.

***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1, 2, and 4-7 are rejected under 35 U.S.C. 102(b) as being anticipated by B.A. Swennes et al. (U.S. 2,044,649).

Re-claim 1 Swennes et al. disclosed, as shown in fig. 18, a spring element capable of being use in transmitting compression and tensile forces between a vehicle frame and a wheel axle, spring element comprises: a rubber body 38; a mechanical connection 36 that extends through the rubber body and is arranged to limit the distancing movement between the vehicle frame and the axle, said connection member comprises a coupling device 37 for coupling the connection member to at least one of vehicle frame and axle; and the coupling device further comprises a first stub 37 with a threaded portion protruding from the spring element, the first stub including fixing means, which can be a nut fastened to the stub 37, for obtaining a rotationally fixed, form-fit to a round hole on said at least one vehicle frame and axle.

Re-claim 2 Swennes et al. disclosed, as shown in fig. 18, wherein said transmittal forces is effected between the axle and an end of a bogie beam pivotably mounted to the vehicle frame.

Re-claim 4 Swennes et al. disclosed, as shown in fig. 18, wherein an axis of symmetry of said threaded portion substantially coincides with an axis of symmetry of said rubber body.

Re-claim 5 Swennes et al. disclosed, as shown in fig. 18, wherein said first stub comprises a conical portion, which can be readable as the chamfer end of the stub 37.

Re-claim 6 Swennes et al. disclosed, as shown in fig. 18, wherein the threaded portion further comprises a second stub with external threads and which protrudes from the spring element.

Re-claim 7 Swennes et al. disclosed, as shown in fig. 18, wherein said threaded portions of the respective first and second stubs are configured to cooperate with a threaded element when coupled to a respective vehicle frame or axle.

### ***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation

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under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

9. Claims 1, 2, 4, 6, 7, 12, and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Thaung et al. (U.S. 4,615,513) in view of Swennes et al.

Thaung et al. disclosed, as shown in fig. 1-2, a spring element configured to transmit compression and tensile forces between a vehicle frame and a wheel axle, spring element comprises: a rubber body 16; a mechanical connection member extending through the rubber body and being coupled between a pair of end plates 12, 14 said mechanical connection member including a coupling device having U-shaped link elements 20, 20 and a link member 22 coupled between the U-shaped link elements, the stub with a threaded portion at the other end of one of the U-shaped link member extending through one of said pair of end plates.

However Thaung et al. fail to disclose the stub being designed such that a rotationally fixed, form-fit on said vehicle frame is obtained by means of a shape of the stub.

Swennes et al. teaches, as shown in fig. 18, a coupling device comprises a first stub 37 with a threaded portion protruding from the spring element is fastened with a nut via a round hole on the vehicle frame for obtaining a rotationally fixed, form-fit to the round hole on said vehicle frame.

It would have been obvious to one of ordinary skill in the art to have merely utilized the known coupling device into the spring element of Thaung et al., in view of the teaching of Swennes et al., in order to ease assembly and disassembly of the spring element from the vehicle frame.

10. Claims 8 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Thaung et al. '513 in view of Swennes et al. '649 and in view of Imaizumo (US 4,875,560).

Thaung et al. disclosed, as shown in fig. 1-2, a spring element comprising: a pair of end plates 12, 14, one of which is connectable to a frame of a vehicle and the other of which is connectable to a wheel axle of a vehicle; a rubber body 16 disposed between the end plates; a mechanical connection member extending through the rubber body and being coupled between a pair of end plates 12, 14 said mechanical connection member including a stub extending through one of said pair of end plates.

However Thaung et al. disclosed the stub is being used to insert into a through-passage of the vehicle frame, but fail to disclose a type of connection wherein when said stub is inserted into the through-passage, relative rotation between said stub and said through-passage is prevented.

Swennes et al. teaches, as shown in fig. 18, the use of a stub 37 with a threaded portion protruding from the spring element that is used to insert into a through-passage of a vehicle frame.

Imaizumo teaches, as shown in fig. 7-8, an assembly with D-shaped hole 52F on mount 2 mating with portion 1B of piston rod 1, (see col. 1, lines 23-27).

It would have been obvious to one of ordinary skill in the art to have merely utilized the known stub with a D-shaped portion mating a D-shaped hole on the vehicle frame into the spring element of Thaung et al., in view of the teaching of Swennes et al. and Imaizumo, in order to prevent rotation between the stub and hole on the vehicle frame during assembly and disassembly of the spring element from the vehicle frame.

11. Claim 9 rejected under 35 U.S.C. 103(a) as being unpatentable over Thaung et al. in view of Swennes et al. and in view of Imaizumo as applied to claim 8 above, and further in view of Ridenour (US 5,658,025).

Thaung et al. as modified failed to disclose wherein said stub includes an internal threaded portion for engagement with a threaded bolt.

Ridenour teaches as shown in fig. 5-6, a fitting includes internal threads 64 can be used instead of external threads 18.

It would have been obvious to one of ordinary skill in the art to modify the stub of Thaung et al., as modified, with a female threaded portion instead of a male threaded portion which old and well known, as taught by Ridenour, as an alternate equivalent having the same intended function of fastening two elements together.



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12. Claims 3, 5, and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Thaung et al. in view of Swennes et al. as applied to claims 1 and 12 above, and further in view of Brown (US 4,138,198).

Thaung et al. as modified failed to disclose a type of connection wherein said stub further comprises a bevel or a conical end portion configured to co-operate with the corresponding bevel on said at least one of vehicle frame.

Brown teaches, as shown in fig. 1-2, a stud 1 having a bevel or conical end portion 5 configured to cooperate with corresponding bevel on support member 2.

It would have been obvious to one of ordinary skill in the art to modify the stub of Thaung et al. as modified with a type of connection having bevel or conical end portion, as taught by Brown, in order to provide a precise mating between the stub of the spring element and the hole of the vehicle frame.

13. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Thaung et al. in view of Swennes et al. as applied to claim 8 above, and further in view of Brown (US 4,138,198).

Thaung et al. as modified failed to disclose a type of connection wherein said stub further comprises a bevel or a conical end portion configured to co-operate with the corresponding bevel on said at least one of vehicle frame.

Brown teaches, as shown in fig. 1-2, a stud 1 having a bevel or conical end portion 5 configured to cooperate with corresponding bevel on support member 2.

It would have been obvious to one of ordinary skill in the art to modify the stub of Thaung et al. as modified with a type of connection having bevel or conical end portion, as taught by Brown, in order to provide a precise mating between the stub of the spring element and the hole of the vehicle frame.

14. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Thaung et al. in view of Swennes et al. as applied to claim 12 above, and further in view of Imaizumo (US 4,875,560).

Thaung et al. fail to disclose a type of connection wherein the stub is shaped to correspond to a shape of a through-passage of the vehicle frame, wherein when said stub is inserted into the through-passage, relative rotation between said stub and said through-passage is prevented.

Swennes et al. teaches, as shown in fig. 18, the use of a stub 37 with a threaded portion protruding from the spring element that is used to insert into a through-passage of a vehicle frame.

Imaizumo teaches, as shown in fig. 7-8, an assembly with D-shaped hole 52F on mount 2 mating with portion 1B of piston rod 1, (see col. 1, lines 23-27).

It would have been obvious to one of ordinary skill in the art to have merely utilized the known stub with a D-shaped portion mating a D-shaped hole on the vehicle frame into the spring element of Thaung et al. as modified, in view of the teaching of Imaizumo, in order to prevent rotation between the stub and hole on the vehicle frame during assembly and disassembly of the spring element from the vehicle frame.

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15. Claim 14 rejected under 35 U.S.C. 103(a) as being unpatentable over Thaung et al. in view of Swennes et al. applied to claim 12 above, and further in view of Ridenour (US 5,658,025).

Thaung et al. as modified failed to disclose wherein said stub includes an internal threaded portion for engagement with a threaded bolt.

Ridenour teaches as shown in fig. 5-6, a fitting includes internal threads 64 can be used instead of external threads 18.

It would have been obvious to one of ordinary skill in the art to modify the stub of Thaung et al. as modified with a female threaded portion instead of a male threaded portion which old and well known, as taught by Ridenour, as an alternate equivalent having the same intended function of fastening two elements together.

16. Applicant's arguments filed on March 18, 2005 have been fully considered but they are not persuasive.

Examiner maintains the rejection is proper. The prior arts Swennes et al. '649 and Thaung et al. '513 still read on claim 1.

Applicant argued in the "Remarks" that "Claim 1 for example does not require a helical, metallic spring as part of the spring element"; "to be rotationally fixed to the vehicle frame or wheel axle because of a conformance fit (form fit)". The phrase "form fit" is relatively broad. The threaded stud of the spring element of Swennes et al., as shown in fig. 18, including a fixing means which can be a nut fastened and tightened with specific torque to the threaded stud for obtaining a rotationally fixed and form-fit to

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a round hole on vehicle frame and axle in order to have a rigid and positive connection between the vehicle frame and the axle. Claim 1 recites "a spring element comprises" and not "consists".

Applicant's argument is more specific than the claim language.


17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mariano Sy whose telephone number is 571-272-7126. The examiner can normally be reached on Mon.-Fri. from 8:30 A.M. to 2:30 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James McClellan, can be reached on 571-272-6786. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

 M. Sy

March 21, 2006

  
JAMES MCCLELLAN  
SUPERVISORY PATENT EXAMINER  
3/21/06